

Rabbit Anti-Opn1mw antibody

SL19646R

Product Name:	Opn1mw
Chinese Name:	绿视 蛋白敏感CBBM抗体
Alias:	CBBM; CBD; COD5; Color blindness, deutan; Cone dystrophy 5 (X linked); GCP; GOP; Green cone photoreceptor pigment; Green cone pigment; Green sensitive opsin; Green-sensitive opsin; Medium wave sensitive; Medium wave sensitive opsin 1; Medium-wave-sensitive opsin 1; MGC176615; MGC177321; MGC198468; MGC198469; OPN1MW; OPN1MW1; OPN1MW2; OPSG_HUMAN; Opsin 1 (cone pigments), medium wave sensitive (color blindness, deutan); Opsin 1 (cone pigments), medium wave sensitive; Photopigment apoprotein.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Chicken, Dog, Horse, Rabbit, Guinea Pig, Goat, Cat,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	40kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Opn1mw:1-100/364 <extracellular></extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20 °C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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This gene encodes for a light absorbing visual pigment of the opsin gene family. The encoded protein is called green cone photopigment or medium-wavelength sensitive opsin. Opsins are G-protein coupled receptors with seven transmembrane domains, an N-terminal extracellular domain, and a C-terminal cytoplasmic domain. The longwavelength opsin gene and multiple copies of the medium-wavelength opsin gene are tandemly arrayed on the X chromosome and frequent unequal recombination and gene conversion may occur between these sequences. X chromosomes may have fusions of the medium- and long-wavelength opsin genes or may have more than one copy of these genes. Defects in this gene are the cause of deutanopic colorblindness. [provided by RefSeq, Mar 20091

Function:

Visual pigments are the light-absorbing molecules that mediate vision. They consist of an apoprotein, opsin, covalently linked to cis-retinal.

Subcellular Location:

Membrane.

Tissue Specificity:

The three color pigments are found in the cone photoreceptor cells.

Post-translational modifications:

Detail:

Phosphorylated on some or all of the serine and threonine residues present in the Cterminal region.

DISEASE:

Defects in OPN1MW are the cause of partial colorblindness deutan series (CBD) [MIM:303800]; also known as deuteranopia.

Defects in OPN1MW are a cause of blue cone monochromacy (BCM) [MIM:303700]. A rare X-linked congenital stationary cone dysfunction syndrome characterized by the absence of functional long wavelength-sensitive and medium wavelength-sensitive cones in the retina. Color discrimination is severely impaired from birth, and vision is derived from the remaining preserved blue (S) cones and rod photoreceptors. BCM typically presents with reduced visual acuity, pendular nystagmus, and photophobia. Patients often have myopia.

Defects in OPN1MW are a cause of cone dystrophy type 5 (COD5) [MIM:303700]. A X-linked cone dystrophy. Cone dystrophies are retinal dystrophies characterized by progressive degeneration of the cone photoreceptors with preservation of rod function, as indicated by electroretinogram. However, some rod involvement may be present in some cone dystrophies, particularly at late stage. Affected individuals suffer from photophobia, loss of visual acuity, color vision and central visual field. Another sign is the absence of macular lesions for many years. Cone dystrophies are distinguished from the cone-rod dystrophies in which some loss of peripheral vision also occurs.

Similarity:

Belongs to the G-protein coupled receptor 1 family. Opsin subfamily.

SWISS: P04001

Gene ID: 2652

Database links:

Entrez Gene: 2652 Human

Entrez Gene: 728458 Human

Entrez Gene: 14539 Mouse

Entrez Gene: 89810 Rat

Omim: 300821 Human

Omim: 303800 Human

SwissProt: P04001 Human

SwissProt: O35599 Mouse

SwissProt: O35476 Rat

Unigene: 247787 Human

Unigene: 571751 Human

Unigene: 284825 Mouse

Unigene: 81056 Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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